

bridging between the work piece and any other element in the system result in random or quasi-random working motions of the particles across the work piece surface, precluding the development of any significant lay or patterning on the surface and operating to remove patterns or lay in the surface as introduced by prior operations. Bridging is, of course, a primary feature of lapping operations.--

Please replace the paragraph beginning on page 41, line 11 with the following rewritten paragraph:

--The invention has been described herein with regard to particular preferred operating circumstances and requirements, and in a particular context. Those of ordinary skill will clearly understand the application of the invention and its uses in other diverse circumstances and will, with the guidance provided herein, be able to adapt the invention to the particular requirements of other contexts of practice of the invention.--

IN THE CLAIMS

Cancel Claims 1-19.

Amend Claim 20 as follows:

20. (Amended) A rheopectic abrasive visco-elastic medium composition for abrasive working of a work piece comprising:

A. a visco-elastic poly(boro-siloxane) polymer carrier having a static viscosity of from about $\eta = 5 \times 10^3$ Centipoise to about $\eta = 5 \times 10^5$ Centipoise;

B. a particulate abrasive;

C. an optional inert filler in an amount of up to about 25% by weight of said medium;

D. an optional plasticizing lubricant for said visco-elastic polymer in an amount of up to about 25% by weight of said medium;

E. said medium having a static viscosity of from about $\eta = 2 \times 10^4$ Centipoise to about $\eta = 8 \times 10^6$ Centipoise, said medium containing a total volume of said particulate abrasive and of said inert filler is less than the critical particulate volume of said medium; and

F. said visco-elastic abrasive medium having from 50% to about 99% deflection by elastic deformation, and 1 to 50% of the deflection of the medium by fluid or plastic flow, when subjected to applied strain rates greater than about 2.5 sec^{-1} .

Amend Claim 21 as follows:

21. (Amended) The medium composition of Claim 20 wherein said visco-elastic abrasive is a material selected from the group consisting of alumina, silica, garnet, silicon carbide, diamond, tungsten carbide and mixtures thereof.